

**In the Specification:**

Please correct the following sentence starting on p. 10, line 27 as follows:

"The refractive index increases when carriers are depleted from highly-doped material, and [increases] decreases when carriers are injected into low-doped material".

Please correct the following sentence starting on p. 16, line 7 as follows:

"The result is a 2D PHC as shown for example in FIG. [11] 8, with a thickness equal to that of the membrane".